

Investment Security Selection for Portfolio Management

Henry Stern, CTP
Chief Investment Officer
City of Los Angeles

California Debt and Investment Advisory Commission

November 16, 2006

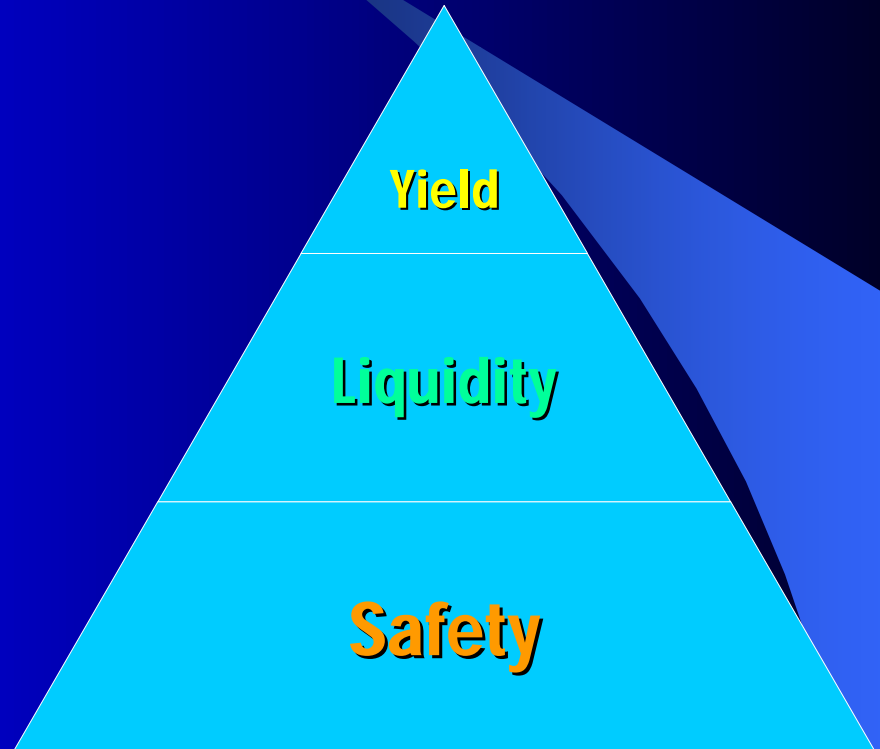
Assumptions -

- Defined by the Investment Program
 - Cash Requirements
 - Identify Risk exposure
 - Performance Expectations
 - Buy and Hold / Active management
- Familiar with the Cal Gov Code, section 53601, et. seq.:
 - Authorized Investments
 - Limitations: Percent of Holdings, Credit Ratings
- Custodian Bank
 - Delivery versus Payment (DVP)

Basic Investment Program Elements

Issues to Consider in Selecting Investments

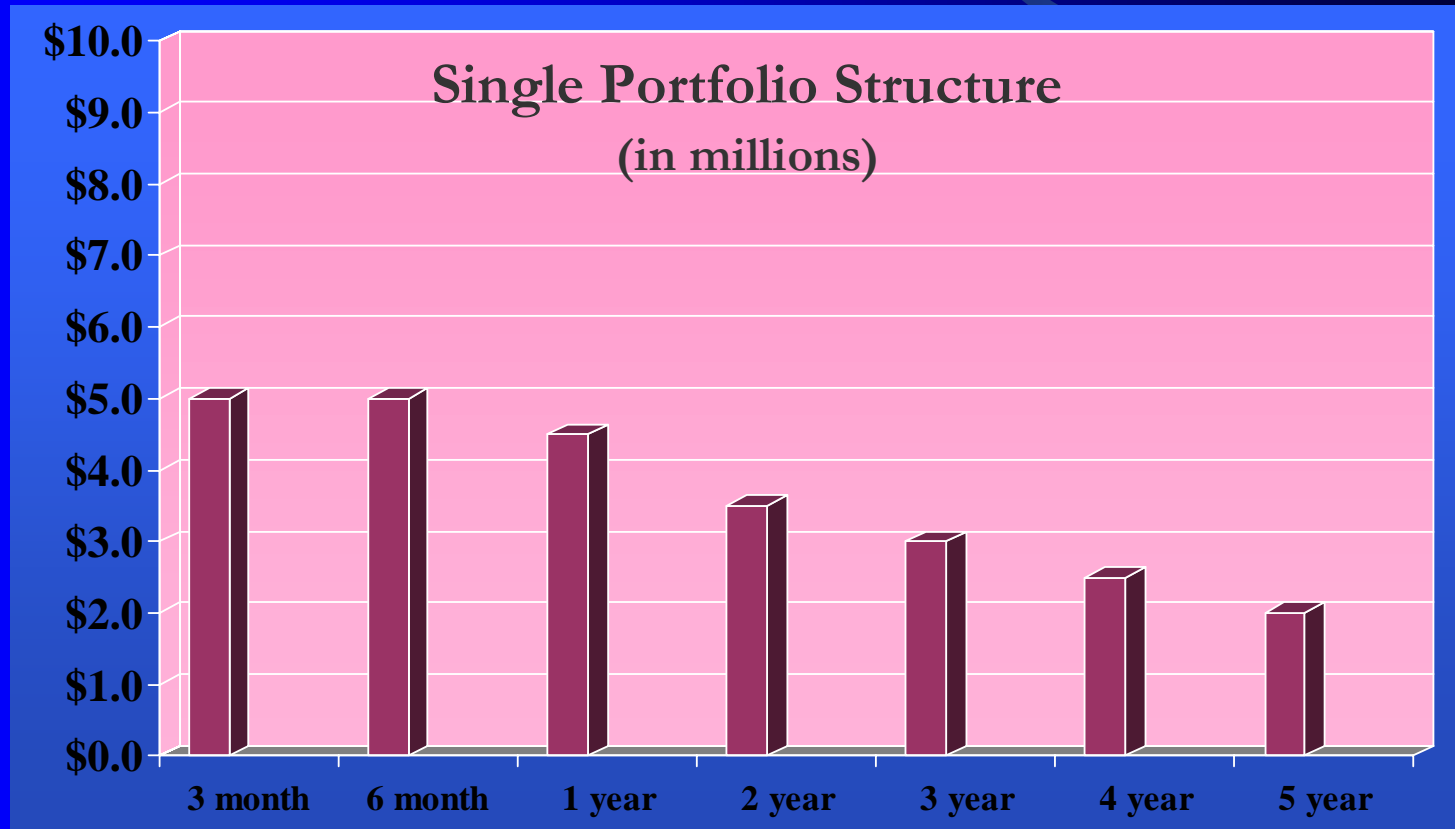
- Safety
- Liquidity
- Yield



Structure of the Investment Portfolio

- Single Portfolio
- Split Portfolio
 - Core Portfolio – short term investments
 - Reserve Portfolio – longer term investments

Basic Portfolio - Laddered



Split Portfolio: Suggested Portfolio Structure

- Divide your portfolio into:
 - Short-term maturities or Core Portfolio
 - Long-term maturities or Reserve Portfolio
- Advantages:
 - Clearly define funds available for liquidity
 - Can optimize returns on both sub-portfolios
 - Each can be managed to a unique benchmark or performance value

Portfolio

– Core / Reserve



Short – Term Portfolio Investments

- Matches Investment Maturities to Cash flow
- Types of Investments:
 - One day investments:
 - Primary Bank Account – Demand
 - Savings Account
 - Money Market Funds
 - Repurchase Agreements
 - L.A.I.F
 - County Pools

Short – Term Portfolio Investments

- Additional short-term investments:
 - Treasury Bills
 - Federal Agency Discount Notes
 - Commercial Paper
 - Negotiable Certificates of Deposits
 - Time Certificates of Deposits

Short Term Investments

Example - Commercial Paper

- Match Maturity to specific cash flow need
- High Credit Quality
- Competitive Rates
- Electronic Platforms
 - Bloomberg Financial - DOCP, BOOM

Bloomberg – DOCP

<HELP> for explanation, <MENU> for similar functions.

N278 f Govt

DOCP

Issuer Lists	Sort Offerings	Output Results To	DIRECT ISSUER COMMERCIAL PAPER												
Issuer List- ALL ISSUERS		Sorted by 15 Day Rate				Yellow indicates executable									
Issuer	--7---	--15--	--30--	--45--	--60--	--90--	-120--	-150--	-180--	-270--	S&P	MDY	FI	Outs.(MM)	
1) General Motors Accep	5.480+	5.500+	5.540+	5.550	5.570+	5.560	5.540	5.530	5.480	5.480	B-1	NP	B	640	
2) Sears Roebuck Accep	5.330+	5.330	5.380	5.380	5.360	5.360	5.360	5.360	5.360	5.360	B-1	NP	B	637	
3) Prudential Fin (4.2)	5.240+	5.250	5.260	5.260	5.260	5.260					A-1	P-2	F1	900	
4) CommoLoCo Inc	5.245+	5.245+	5.245	5.245	5.200+	5.235	5.220+	5.205+	5.180+	5.080	A-1	P-1	F1	100	
5) Abbey Natl NA LLC	5.240+	5.240+	5.240	5.235	5.230	5.230	5.210	5.180	5.160		A-1+	P-1	F1+	7700	
6) American Gen Fin Cor	5.230+	5.240+	5.240	5.235	5.200+	5.225	5.210+	5.195+	5.170+	5.070	A-1	P-1	F1	4749	
7) Intesa Funding LLC	5.245+	5.240	5.240	5.240+	5.230+	5.230					A-1	P-1	F1	4662	
8) AIG Funding Inc	5.230+	5.230+	5.230	5.225+	5.200+	5.215	5.200+	5.185+	5.160+	5.060	A-1+	P-1	NR	3526	
9) Calyon North America	5.230+	5.230+	5.220+	5.220	5.215	5.215+	5.200+	5.180+	5.160+	5.090	A-1+	P-1	F1+	5500	
10) General Electric Co	5.230+	5.230	5.240+	5.230	5.230						A-1+	P-1	NR	8962	
11) LaSalle Bank Corp	5.230+	5.230+	5.230	5.220	5.200+	5.190	5.170	5.150	5.130+	5.050	A-1	P-1	F1+	6931	
12) San Paolo IMI US Fin	5.240+	5.230	5.230+	5.220+	5.200+	5.190+	5.180+	5.160+	5.150+	5.070	A-1+	P-1	F1+	4999	
13) Prudential Funding	5.230+	5.230	5.230	5.230+	5.200	5.180	5.180	5.150	5.130+	4.900	A-1+	P-1	F1+	7700	
14) GE Capital Corp	5.220+	5.220	5.230	5.230	5.210	5.230+	5.220+	5.200+	5.180+	5.100	A-1+	P-1	NR	54843	
15) GE Capital Services	5.220	5.220	5.230	5.230	5.210	5.230+	5.220+	5.200+	5.180+	5.100	A-1+	P-1	NR	7320	
Australia 61 2 9777 8600 Brazil 5511 3048 4500 Europe 44 20 7330 7500 Germany 49 69 920410 Hong Kong 852 2977 6000 Japan 81 3 3201 8900 Singapore 65 6212 1000 U.S. 1 212 318 2000 Copyright 2006 Bloomberg L.P. 6691-775-0 30-Oct-06 7:59:50															

DOCP – Am Gen

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Issuer Lists	Sort Offerings		Output Results To			DIRECT ISSUER COMMERCIAL PAPER								
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15) Natexis US Fin Co	5.220+	5.220	5.225	5.225	5.220	5.220+	5.185	5.170	5.170+	5.090	A-1+	P-1	F1	4600

Close This Window

American Gen Fin Cor Rates for: 15-29 days

15 @5.240

16 @NQ

17-24 @5.240

25-27 @NQ

28-29 @5.240

Australia 61 2 9777 8600

Brazil 5511 3048 4500

Europe 44 20 7330 7500

Germany 49 69 920410

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 1<GO> to Search, 2<GO> to Search and Save. 3<GO> to delete.

Money Market Offerings

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All Money Markets

Commercial Paper

Agency Discount Notes

Certificates of Deposit

VRDNs

Search Profiles	Select Search Criteria	All Money Markets
11) DEFAULT	Maturity <input type="radio"/> Days 29 to 31 <input checked="" type="radio"/> Dates 11/28/06 to 11/30/06	
12) 1	Single Ticker <input type="text"/> Minimum Coupon 0.000	
	Minimum Yield <input type="text"/> Minimum Size 20000 M	
	Reg. Types <input type="button" value="Edit"/> All.	
	Ratings <input type="button" value="Edit"/> Top Top,Top.	
	Credit Watch <input type="button" value="Edit"/> S&P Positive,S&P Developing,Moodys P...	
	Col/Guarantor <input type="button" value="Edit"/> All.	
	Industry Types <input type="button" value="Edit"/> All.	
	Product types <input type="button" value="Edit"/> All.	
	Sort order Maturity m d <input type="button" value="v"/> S and P <input type="button" value="v"/> Size (M) <input type="button" value="v"/>	
	Approved Issuer Lists F_CP <input type="button" value="v"/>	

ABN Amro	Banc of America	Barclays	BNP Paribas	Citigroup Global
Credit Suisse	Deutsche Bank	FTN Financial	Goldman Sachs	HSBC
JP Morgan	JP Morgan LNST	Lehman Brothers	Mellon Financial	Merrill Lynch
Mizuho	Morgan Stanley	Nomura	Paine Webber	RBS GREENWICH CAP
State Street	SunTrust	UBS	Wachovia	Williams Capital

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Saved Searches

Edit

Options

AGD Offerings: DEFAULT

Hide Dealers

Show Dealers

Issuer

View

Mixed Mode

COMMINGLED

Display	Number	Size (M)	Issuer	Maturity	SD Dsc/Cpn	Yield	Dir	TYP	Ticker
1) * COMMINGLED	85	50,279	FNMA DISCOUNT	01/17	5.130	5.188	HSBC	AGD	FNDN
2) * Barclays	21	43,923	FNMA DISCOUNT	01/24	5.130	5.194	HSBC	AGD	FNDN
3) * Citigroup Global	12	20,538	FNMA DISCOUNT	01/22	5.130	5.192	MER	AGD	FNDN
4) * Morgan Stanley	9	20,469	FNMA DISCOUNT	01/17	5.130	5.188	UBS	AGD	FNDN
5) * UBS	9	99,460	FNMA DISCOUNT	01/17	5.125	5.177	SSB	AGD	FNDN
6) * Banc of America	5	145,446	FNMA DISCOUNT	01/24	5.125	5.183	SSB	AGD	FNDN
7) * JP Morgan	5	108,109	FREDDIE DISCOUNT	01/23	5.125	5.182	SSB	AGD	FMCDN
8) * Merrill Lynch	5	47,350	FREDDIE DISCOUNT	01/16	5.125	5.177	SSB	AGD	FMCDN
9) * RBS GREENWICH CA	5	125,000	FREDDIE DISCOUNT	01/30	5.125	5.187	SSB	AGD	FMCDN
10) * Credit Suisse	4	21,546	FHLB DISC CORP	01/19	5.125	5.185	UBS	AGD	FHDN
11) * Goldman Sachs	4	63,664	FREDDIE DISCOUNT	01/23	5.120	5.183	BA	AGD	FMCDN
12) * Deutsche Bank	2	50,834	FREDDIE DISCOUNT	01/30	5.120	5.188	BA	AGD	FMCDN
13) * FTN Financial	2	47,177	FNMA DISCOUNT	01/17	5.120	5.178	CSFB	AGD	FNDN
14) * HSBC	2	369,488	FHLB DISC CORP	01/24	5.120	5.183	CSFB	AGD	FHDN
15) * Lehman Brothers	0	72,858	FREDDIE DISCOUNT	01/30	5.120	5.188	CSFB	AGD	FMCDN
16) * Nomura	0	109,286	FREDDIE DISCOUNT	01/30	5.120	5.187	DB	AGD	FMCDN
		100,000	FHLB DISC CORP	01/26	5.120	5.184	GC	AGD	FHDN
		100,000	FREDDIE DISCOUNT	01/23	5.120	5.182	GC	AGD	FMCDN
		50,750	FNMA DISCOUNT	01/17	5.120	5.177	GC	AGD	FNDN
		27,200	FNMA DISCOUNT	01/22	5.120	5.181	GC	AGD	FNDN

All

0-7

8-30

31-60

61-90

91-180

181-270

271+

Australia 61 2 9777 8600

Brazil 5511 3048 4500

Europe 44 20 7330 7500

Germany 49 69 920410

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Japan 81 3 3201 8900

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Long-Term Portfolio Structure

- Types of Investments:
 - Includes Short – Term Portfolio
- Additional Investment Security Options:
 - Treasury Notes
 - Federal Agency Debentures / MTN
 - Medium Term Corporate Notes (MTN)
 - Other – as defined by the Calif. Govt. Code and your Agency Investment Policy

Investment Strategy / Asset Determination

- Program Definitions – Risk Profile
 - Credit Rating Considerations
- Portfolio Management Performance
 - Effective Yield
 - Total Return
- Performance Measures
 - Benchmark
 - Other comparative values

Primary Investment Securities Used by California Local Agencies

- Treasury Notes / Bonds
- Federal Agency Notes / Debentures
- Medium Term Corporate Notes

Federal Agency Issues

- Primary Issuers:
 - FNMA, FHLB, FHLMC, FFCB
- Characteristics of Federal Agencies
 - Size of Individual Issue
 - Bullet or Callable structure
 - Positive / Negative Convexity
 - Investment Return - Yield
 - Reinvestment Risk

Determining 'Fair' Value of Investment Securities

- Price / Yield Spread between Asset Categories
 - Treasury to Federal Agency
 - Treasury to Medium Term Corporate Note
- Price / Yield Spread between Same Asset Categories
 - Non-callable versus Callable option
 - Credit Quality – AA rating to A rating

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Page
Enter # <GO> for DES.
New Issues: Agencies

N127 Govt **NIM**
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Issuer	Cpn (%)	Mty (M/D/Y)	Sprd (BP)	Outstand Amt (Mil)	Book Mgr (*=group)	Note
1) FED HOME LN BANK	5.33	11/14/07		USD 50	CS	1-NC3MO INC
2) FED HOME LN BANK	6	11/15/13		USD 150	DB	7-NC6MO INC
----- WEDNESDAY, OCTOBER 25 -----						
3) FED HOME LN BANK	5 ¹ / ₂	05/14/09		USD 50	C	2.5-NC3MO
4) FED HOME LN BANK	5.54	11/06/13		USD 25	FTN	7-NC2 1X
5) FED HOME LN BANK	5.55	11/13/09		USD 50	JEFF,UBS	3-NC3MO INC
6) FED HOME LN BANK	5 ¹ / ₄	09/13/13		USD 665.8	MS	7-NC TAP INC
7) FED FARM CREDIT	5.15	11/01/07		USD 10	FTN	1-NC
8) FED HOME LN BANK	5.44	11/15/10		USD 15	GKST,STFL	4-NC1 1X
9) FED HOME LN BANK	5 ¹ / ₂	11/21/11		USD 40	LEH	5-NC CONT
10) FED HOME LN BANK	5.95	11/22/13		USD 15	PJC	7-NC6MO CONT
11) FED HOME LN BANK	5 ³ / ₄	11/22/11		USD 15	NOM	5-NC6MO CONT
12) FED HOME LN BANK	5 ¹ / ₂	11/17/09		USD 40	NOM	3-NC6MO CONT
13) FED HOME LN BANK	5.55	11/01/16		USD 15	JEFF,SUN	10-NC5 1X
14) FED HOME LN BANK	5 ¹ / ₂	11/14/08		USD 50	CITI	2-NC3MO INC
15) FED HOME LN BANK	5.2	05/02/07		USD 25	FTN	6MO-NC
16) FED HOME LN BANK	5 ¹ / ₂	11/06/13		USD 30	FTN	7-NC3 1X INC
----- TUESDAY, OCTOBER 24 -----						
17) FED HOME LN BANK	5.4	11/16/09		USD 25	C	3-NC1 1X
18) FED HOME LN BANK	5 ¹ / ₄	04/30/08		USD 25	SUN	1.5-NC6M INC

Australia 61 2 9777 8600

Brazil 5511 3048 4500

Europe 44 20 7330 7500

Germany 49 69 920410

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N127 Govt

USSW

Change Country			US GOVT/SWAP/AGENCY COMPOSITE										08:30:46					
GV ASK/CHG			SW/GV		SWAP MID		FNMA		FN/GV		FN/SW		FHLMC		FH/GV		FH/SW	
2Y	4.759	0.016	38.8	-0.2	5.147	0.010	4.978	21.1	0.5	-17.1	-0.2	4.978	21.5	0.8	-16.8	-0.0		
3Y	4.691	0.012	40.2	-0.2	5.096	0.017	4.923	23.0	-1.0	-17.4	-1.4	4.926	23.5	-0.2	-17.1	-1.4		
4Y	4.647	0.013	42.9	-0.0	5.096	0.011	4.927	27.3	0.3	-17.7	-0.7	4.928	25.7	0.5	-18.0	-1.5		
5Y	4.639	0.007	47.3	0.3	5.113	0.008	4.940	30.1	-8.5	-17.2	-10.1	4.948	31.3	1.0	-16.0	-0.6		
7Y	4.653	0.006	49.8	0.0	5.153	0.006	4.970	31.1	-0.8	-18.4	-1.0	4.970	31.0	0.1	-18.9	-1.0		
10Y	4.675	0.004	53.0	0.2	5.209	0.007	5.021	34.5	-0.6	-18.5	-0.9	5.026	34.7	-10.1	-18.5	-0.3		
30Y	4.794	0.001	54.3	0.3	5.337	0.004	5.181	40.2	0.2	-14.0	-2	5.169	38.2	0.2	-16.0	-2		
DJIA	12101.9	+11.7	S&P 500	1378.70	1.36	CCMP	2360.27	9.65	BE500	252.81	-0.78							
CASH MARKET			ACTIVE FUTURES				SWAPTION 1Y		3Y	5Y	7Y	10Y	CAP/FL					
1M LIBOR	5.32000		5 Year	105-08	-01	1Y	16.2	16.1	15.6	15.1	14.3	11.1						
3M LIBOR	5.37125		10 Year	107-23	-01	2Y	17.2	17.0	16.6	15.9	15.3	15.1						
6M LIBOR	5.38938		LONG BOND	111-25	-02	3Y	17.7	17.3	16.9	16.4	15.5	16.3						
1Y LIBOR	5.33063					4Y	17.5	16.8	16.9	16.4	15.8	16.9						
Fed Funds	5.25000					5Y	17.7	17.2	16.8	16.3	15.7	16.9						
O/N Repo	5.21000		5Y Swap	103-29	-01+	7Y	16.8	16.6	16.1	15.7	15.1	17.4						
1W Repo	5.17000		10Y Swap	106-04	-01	10Y	16.0	15.6	15.2	14.7	14.2	17.3						
Date Time			Event				Survey		Actual	Prior	Revised							
10/30 5:30	US	1)	Personal Income				SEP	0.3%	0.5%	0.3%	0.4%							
10/30 5:30	US	2)	Personal Spending				SEP	0.2%	0.1%	0.1%	0.2%							
10/30 5:30	US	3)	PCE Deflator (YoY)				SEP	3.0%	2.0%	3.2%	--							
10/30 5:30	US	4)	PCE Core (MoM)				SEP	0.2%	0.2%	0.2%	0.3%							
Australia 61 2 9777 8600 Brazil 5511 3048 4500 Europe 44 20 7330 7500 Germany 49 69 920410												Copyright 2006 Bloomberg L.P.						
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Where to Get More Information

- Investment Workshops:
 - CDIAC, CMTA, CSMFO, GFOA, GIOA, AFP
 - Bloomberg, TradeWeb, Market Axxess, Bond Edge, Yield Book
 - Programs, such as:
 - Certified Treasury Professional (CTP)
 - Chartered Financial Analyst (CFA)
 - Professional Risk Management (PRM)
 - Master in Business Administration (MBA)